ABSTRAK

Sebuah penelitian tentang pengaruh paparan radiasi pada mencit hamil terhadap anomali fetus telah dilakukan. Sejumlah 20 ekor mencit hamil dibagi dalam empat kelompok. Kelompok pertama merupakan kontrol yang diberi paparan radiasi dari *smatrphone*. Kelompok dua-empat diberi perlakuan paparan radiasi dengan durasi secara berturut-turut 15, 30, dan 60 menit. Perlakuan uji mulai diberikan pada hari ke-6 sampai hari ke-18 kehamilan. Setelah hari ke-18 kehamilan, hewan percobaan di laparatomi. Parameter yang diamati adalah berat badan induk mencit, berat badan fetus, jumlah fetus yang hidup, jumlah fetus yang mati, pengamatan jenis cacat pada fetus, dan pengamatan hasil fiksasi. Data dianalisis dengan metode analisis variansi (ANOVA)dengan tingkat signifikansi 5%. Berdasarkan uji ANOVA didapatkan hasil bahwa pemberian paparan radiasi selama 15,30 dan 60 menit mempengaruhi perkembangan berat badan mencit. Hasil penelitian menunjukkan bahwa pemberian paparan radiasi selama 15 dan 30 menit menyebabkan induk mencit mengalami lambat perkembangan kehamilan dibandingkan pemberian selama 60 menit. Fetus mengalami cacat *cleft palate, haemoragi* dan tapak resorpsi pada paparan radiasi selama 60 menit. Dapat disimpulkan bahwa paparan radiasi pada mencit hamil beresiko memperlambat perkembangan kehamilan dan menimbulkan cacat *visceral* terhadap fetus.

ABSTRACT

A study on the effect of radiation exposure in pregnant mice against fetal anomalies have been done. A number of 20 pregnant mice were divided into four groups. , The first group was the control by exposure to radiation from the smartphone. Groups of two-four were treated with radiation exposure duration, respectively 15, 30 and 60 minutes. Treatment began test is given on day 6 to day 18 of pregnancy. After the 18th day of pregnancy, animals at laparotomy. Parameters measured were parent body weight of mice, fetal body weight, number of live fetuses, the number of dead fetuses, observation of defects in the fetus, and the observation results of fixation. Data was analyzed by analysis of variance (ANOVA) with significance level of 5%. Based on the ANOVA test showed that giving radiation exposure during 15.30 and 60 minutes affecting weight development of mice. The results showed that administration of radiation exposure for 15 and 30 minutes causes the parent mice experienced slower growth compared to the provision of pregnancy for 60 minutes. Fetus disability cleft palate, and treads haemoragi resorption in radiation exposure for 60 minutes. It can be concluded that the radiation exposure of pregnant mice at risk of slowing the progression of pregnancy and cause visceral defects to the fetus.